



# School's solar panels create power for the community

When an Otago school installed its new solar panels, students and teachers realised the excess energy was an opportunity to provide their community with cheaper power.

Based in a small seaside settlement, Waitati School installed a set of solar panels in October last year. The school now creates 10 kilowatts of solar power from its roof panels.

Principal Stacey Honeywill says the whole school did a lot of learning around solar power and the sun before the panels arrived. From this learning came the idea of selling the school's excess power.



Students draw around shadows in an interpretation of sun art.

"When we knew that the panels were coming we dismissed whatever we had planned on the curriculum document to teach and said, 'Look, let's do solar - it's purposeful, it's pertinent,' and so we did," she says.

"There's a local power network which we have hooked into and people in the community [if they're part of that power network] can buy our excess solar energy at a cheap rate. We're the first school in the country... to sell back to the community."

## Learning

Teachers used the students' excitement about the new panels to capture their interest in a variety of curriculum areas, from literacy to technology, to social sciences.

"They did the learning around technology and solar power and chose to make something related to solar. Some students were trying to make little lights go with tinfoil," Stacey says.

"I'd walk outside and there'd be little solar ovens that the children had made themselves and they were trying to cook cookies or toast marshmallows.

"One classroom made a whole lot of tiny houses and put solar panels on the roofs of these tiny houses."

Students learned about the sun's importance in different cultures, why it was important and how different people celebrated the sun. They revisited the legend of Māui and the sun and made a video re-enacting the story to demonstrate understanding of the importance of the sun in Māori culture.

The school has also looked at how and when they use electricity.

"We found that we seemed to be using quite a bit of power in the evenings and couldn't understand why. We went back to the kids and looked at what we might be using and realised that we're charging all of our Chromebooks at night when we're not here," Stacey says.

"There's constant reflection on what that solar power is doing and how we should be using our power."

"They came up with the solution that maybe we should be charging those when the sun's shining and we're making this power so it's not costing us as much. There's constant reflection on what that solar power is doing and how we should be using our power."

## Community links

Waitati School became a Green/Gold Enviroschool at the end of 2017. Getting solar power was the next step in the school's environmental journey and it held a community event to celebrate the fact that the panels had been installed.

"We have on the school site the offices of the Blueskin Resilient Communities Trust that looks after sustainable energy and the environment in Waitati and the wider community. They worked with their power company, Blueskin Energy Ltd, to set us up and they worked closely with me to get the appropriate solar panels," Stacey says.

Students are able to learn from the experts in the company, as the school has formed a good relationship with the trust.

"There's a power app for this company and the person who is designing the app, a gentleman who lives in Wellington, is coming to the school to share with the senior students how the app works and how we can log on and find our power usages," she says. "We will use the visit to create a strong link to maths."

The school also plans to teach students how to analyse data once the solar panels have been in place for a bit longer.

"We need a couple more months to see the effects of the people buying it from us." ☺



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